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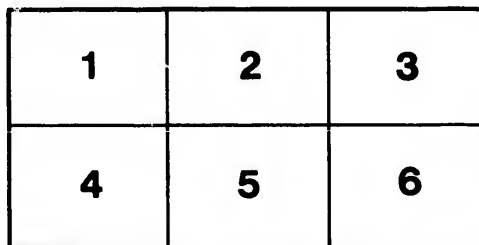
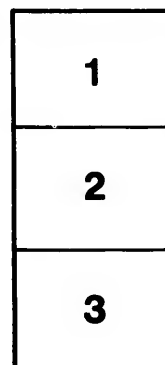
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IMPROVEMENTS ABOUT QUEBEC.

A great deal has been said of late on the above subject, but very little done, and if we may judge from appearance, there is little prospect of much being done for some time to come; there is, however, no harm in discussing the merits of the respective projects now undergoing public discussion, that the public and the constituted authorities may be prepared to act when the proper time comes.

One great project that has been talked of for some time past is, improvements at the mouth of the St. Charles. I shall say but little on that subject, because that situation being much exposed to East and North-East winds, which are both frequent and violent, I look on it as an insurmountable obstacle to all extensive improvements in that quarter.

A wharf or break-water built on the north side of the St. Charles, from high to low water, to protect small craft frequenting the wharves in St. Paul's street and St. Paul's market, is all the useful improvements the place is susceptible of; any thing else would be money the next thing to being entirely thrown away.

There is another improvement which was talked of some years ago, but of which I have heard but little of late: that is, running a wharf from some point near Diamond Harbour, extending upwards in front of the adjoining Coves, on a shoal called the *Batture aux Mouches*.

This, in my humble opinion, is a far better place to make improvements in, than the mouth of the St. Charles, because it is well sheltered from all winds, and there is no doubt wharves and stores built there would answer well for some purposes; but these wharves would labour under the same disadvantages as all other wharves about Quebec, that is, vessels lying alongside of them are acted on by the rising and falling of the tide, which for some purposes is very injurious and which can only be remedied by Wet Docks, which is the project I most approve of.

In July, 1847, I sent a petition to His Excellency the Governor General on that subject. This petition, after some things of a private nature, goes on to state:

"The River Cap Rouge is well adapted for the construction of a Wet Dock, and possesses advantages for that purpose much superior to any other place on the River St. Lawrence.

"Its advantages are: the River itself, for about one mile, forms a complete basin, which with but very little excavation could be made to contain a great number of the largest sized vessels.

"The mouth of the river is narrow and the bottom hard and well calculated to build a lock; which is all that is wanted to complete the dock.

"The anchorage ground opposite the mouth of the river is good, and is one of the best harbours to be found in any part of the world, where vessels could ride with perfect safety while waiting to enter the dock.

"The water of said river, with other streams that might be brought into it, would give a sufficient supply to make up for any leakage there might be, as well as to drive machinery; to load and unload grain vessels; clean and prepare the grain for shipment, &c., &c.; by which means the work could be done at about one third of the expense, and in about one third of the time, that it can be done by the present mode of working, and besides the work would be done to much more perfection.

"Your petitioner begs further to state, what, in his humble opinion, would be some of the advantages of such a work in a public point of view.

"Your Excellency, as well as every other person who will take an impartial view of the subject, will see that when the great line of canals now in progress of construction are completed, Quebec, or some place near it, must be the great dépôt for vessels coming from above and exchanging their cargoes with sea-going vessels; nature has so ordained it and it cannot be resisted.

"Your Excellency is also well aware that our neighbours are making great efforts to draw all the trade of the upper country to themselves, and that unless we meet them with equal efforts, our trade will be lost, our canals rendered useless, and the revenue to be derived therefrom will go into other hands.

"Now, it is to prevent these evil consequences that your petitioner has in view, that, by safety, economy and despatch, the trade may be drawn this way, which will much benefit all classes of Her Majesty's subjects, and increase the revenue on the canals, &c., there being little doubt but that if proper encouragement is given, this will be the terminus of the great chain of water communication now opening up, to connect the sea coast with the great western world, and more particularly in the grain trade.

"Whilst some talk of protection and others squabble about free trade and the navigation laws, your petitioner has no doubt but that Your Excellency will agree with him in opinion, that it is far better to put our shoulders to the wheel, and by active exertions successfully to compete with our enterprising rivals, by at least imitating, if not outstripping them, in useful improvements to promote economy and despatch in trade.

"A great deal more might be said on this important subject, but your petitioner thinks enough has been said to draw Your Excellency's attention to it.

"The facility of erecting these works will be further seen by

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the accompanying plan, which your petitioner has got drawn for Your Excellency's information."

The petition closes with some matters of a private nature, but which are of but little interest to the public.

This petition, with the plan of the ground, was sent to the Commissioners of Public Works, who sent F. P. RUBIDGE, Esq., Civil Engineer, to examine the place and he made the following report thereon :—

(COPY.)

PUBLIC WORKS,

30th September, 1847.

GENTLEMEN,

At the close of August last, I received your instructions to proceed to Quebec, and Cap Rouge in its vicinity, to make certain examinations and preliminary surveys, with the view ultimately of constructing Wet-Docks, to meet the increased demands of an enlarged Shipping Trade, and for the extension of commerce in and near Quebec.

My attention on this occasion was more particularly given to the *embouchure* of Cap Rouge River, in consequence of the application of MICHAEL SCOTT, Esq., made to the Provincial Government for the above object. I was directed, however, to visit the Estuary of the St. Charles, at high and low tides, to form some opinion of this locality for the projected Docks, which opinion I now beg respectfully to lay before you.

There is little doubt that an increased extent of wharfage and facilities for loading and unloading sea-going ships, are much called for at the Port of Quebec. The present Quays, the focus of a growing Trade, are inconveniently hemmed in at the base of the promontory of "Cape Diamond," and the encroachments which have from year to year been made upon the river, have, on the St. Lawrence shore, perhaps, reached their furthest limit, and nearly so upon the southern bank of the St. Charles.

The inhabitants and others interested in the Port of Quebec, have therefore naturally turned their attention to the acquirement of space from the Shoals at the mouth of the St. Charles, where accommodation for shipping might be obtained in the construction of extensive floating Docks, with sites for Warehouses, additional streets, and, in point of fact, the possible formation of a northern suburb; allowing vessels to take in or deliver cargoes alongside, free from their present crowded state, screened from Easterly gales, and removed from the danger, expense and difficulty of transshipment, with the rise and fall of a tide varying in level sometimes twenty feet.

There is no doubt a project on so grand a scale is practicable as a National undertaking, and might be carried out, so far as the

mere construction thereof is concerned ; but there are considerations and natural obstacles involved in the question, which it would be prudent to bear in mind, some of which are :

The exposed position of the site.

The vast expense to be incurred.

The uncertainty of any revenue, derivable therefrom, meeting the interest on so large an outlay.

The unsuitableness of enclosed Docks for lumber shipments, at present the principal trade of the Port.

The destroying a natural Harbour of refuge for coasting vessels and other small craft, in occupying the entrance of the St. Charles.

On each of these heads I have to offer a few remarks ; and firstly—The prevalence and violence of Easterly and North-Easterly gales at Quebec, are almost proverbial ; but the wharves of the City are in some degree sheltered therefrom by the opposite shores of Point Levy ; while the effect of a Northerly or North-Easterly gale sweeping past the Island of Orleans through the North and South Channels, is to precipitate their converging waves into the basin of the St. Charles ; and the vast bay hollowed out of the Beauport shore by continual storms, has been the natural result.

The edge of the Beauport shoal or bank commences in a line from the India wharf, and in my humble view, points out the original North-West margin of the St. Lawrence, until the bluff rocks of Cape Diamond arrested the surge in its march of destruction. The exposure of this situation in the direction of the most violent and frequent winds, appears therefore a serious difficulty, if not a strong objection.

Under the next head of the *large expenditure* to be incurred ; without going into more detailed surveys, it may be affirmed that this fact is self-evident, from a mere inspection of the spot. To be efficient, any such works should be capacious in extent and of the most substantial character—and setting aside calculations founded upon measurements for the present, I do not fear to assert that docks suitable to this unsheltered situation, and worthy the rising prospects of the Province, could not be completed with all their proper Lock-entrances, Breakwaters, Warehouses, Retaining-walls and Equipments, for a much less sum than Five hundred thousand pounds currency—(£500,000.)

The annual interest on so large an investment, necessary to cover the constant repair, maintenance and improvements called for, could not be set down below ten per cent, or Fifty thousand pounds currency—(£50,000.) Works of this magnificent class are, in older countries, usually undertaken by corporate bodies and chartered companies, Docks built by the Government being confined to the Naval defences of the Empire. It becomes questionable whether a large number of Stock-holders could be found, bold enough to venture their capital, with so doubtful an issue of a

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sufficient return from the rates, dues and rentals accruing from so uncertain a speculation : because, under the next head, looking at the unsuitableness of enclosed Docks for Lumber Shipment, it becomes proper to enquire from what branch of commerce is this great revenue to be derived ? The answer may be, an expectation of a considerable portion of that vast trade, the transhipment of grain and flour from the Western States. But this desirable carrying trade may or may not be ours, just as the competing channels of transport severally offer the cheaper and consequently the most successful route. *Heavy Dock-dues*, therefore, would be one means of depriving Quebec of this valuable carrying trade.

That Wet-Docks would be resorted to for the shipment of lumber, appears to me most absurd. The great space requisite for this branch of commerce, the trouble and delay of locking and passing cribs into the basin, the extra tax upon the article in the shape of dues, all operate against this supposition ; the natural lumber-grounds being the numerous sheltered coves on either side of the St. Lawrence above Quebec, where rafts lie beached in safety, ready for the Culler, and until the prices in the market will prevent their being sold at a sacrifice. Vessels anchored in the stream or along-side the mooring-blocks, may take in their their cargoes with little trouble and expense ; when, in a limited area, such as a Dock affords, room would be too valuable to allow of delay in shipment even for a single day. For the purposes of lumber-shipment, therefore, which at present employs the great bulk of the tonnage of the Port of Quebec, I am induced to believe a Dock would be altogether unsuitable and useless.

On the last head, I would observe, that all the wharves, slips and landings on the south shore of the St. Charles, including the extensive St. Roch's suburb, its market, ship-yards, &c. &c., create a business and are resorted to by a fleet of coasting schooners and bateaux, which, though rudely navigated, may even in a strong easterly gale, with a rising tide, run fearlessly for shelter into the noble Haven of the St. Charles ; from which, if these works obstructed their free entrance, they would be driven in severe weather to fly for refuge elsewhere at greater hazard.

Two schemes, I believe, have been under contemplation. The first, to throw a dam across the whole Estuary to the Beauport side, and raising the level of the St. Charles above high tide, thus avoid excavation. This would have the bad effect of drowning the St. Roch suburb, entailing damages to an incalculable amount, besides destroying a good natural Harbor of refuge. The other project is, a Wet-Dock with three separate enclosed basins, occupying the present south channel of the St. Charles, as far as the Light House, nearly in a parallel line with St. Paul street, completely cutting off the business of the several wharves and slips at present in the full occupation of various parties, to whom indemnity to an immense amount would have to be paid.

On the whole I see no plan so reasonable, for immediate purposes, as that propounded by ALFRED BARRETT, Esquire, Engineer of the Lachine Canal, viz : constructing a considerable extent of Quay on the edge of deep water, where square-rigged vessels could take their berths at all states of the tide ; and under the "lee" or inner side of which, smaller craft could moor in safety and deliver their cargoes. Even supposing the future demands of the trade should warrant an expenditure so great as that called for in the construction of floating Docks, still this Quay, above proposed, would then form a very important portion of the works as a break-water to the easterly seas, and between which and the outer dock-wall vessels might lie sheltered and secure.

Having thus laid before you my earliest impressions on taking up the important subject of the proposed St. Charles Docks, I now revert to the advantages offered at Cap Rouge for a work of similar enterprize.

So far as nature has assisted a project of the kind, this locality certainly presents far more eligible features for the formation of floating Docks, and that to any extent of space and accommodation which may be hereafter necessary. I have accordingly laid down, on a ground plan of the vicinity, two several schemes for effecting this object ; the first of which, colored green, being also the less expensive work, would admit vessels only during high tide through single gates, and would require a long Pier of Crib-work carried out to deep water, with some excavation, as a guide to ships warping into the basin. Considerable interior excavation in clay would have to be done, to give a uniform depth of seventeen feet water ; but the main advantages of the site are, its perfectly secluded position from storms, and the facilities to be obtained from water-power brought from a higher level for unloading and loading vessels by machinery, effecting a considerable item of saving in transshipment.

In the event of this site proving too limited and objectionable, and from the short interval of time for ingress and egress ; this might then form a valuable auxiliary, as an *inner basin*, to the more extended second project, shewn in *red tint* upon the Plan, where vessels could enter a capacious basin of about twenty-seven English acres, the greater part thereof mud bottom, and float in seventeen feet water, any time from half flood to half ebb. The capability of this site for protection and defence, would also add to its other recommendations ; and its proximity to the City of Quebec, distant about 9 miles, with tiers of ships already scattered along either shore of the St. Lawrence, nearly to this point, argues favorably for its position as a *dépôt* for our Commercial Marine.

I have made such preparatory examinations and surveys, as are sufficient to form an approximate estimate of the cost of these two several propositions, and which will shortly follow this report—and in case of the Government sanctioning now, or at any future period,

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the more extended plan of works on the application of any chartered Company, it would be essential to withhold making over any control which they at present possess on the beach to low water mark, to private individuals or parties for mere rafting-grounds or lumber-coves. Already extensive Piers are occupying the shore, one of which, run out this summer, is seven hundred feet in length; and possession may thus be said to be virtually taken of this favorable locality.

At this stage of the project, to give details of construction would be premature; but the general features thereof may be properly alluded to. The outer dock-walls would have to be formed of massive masonry, both on their exterior and interior faces. The excavation, from the enclosed basin, being filled in between, forming a broad embankment, upon which ranges of warehouses might be carried up to any extent; the greater portion of this masonry, as also the Entrance Lock, would require close piling. The Lock would have to be of the largest class, or suitable for vessels of from 16 to 17 feet draught of water; the lift being at half-tide about 9 feet 6 inches. One or more graving Docks could be built, as needed for repairs of ships; and two large waste-weirs, of capacity sufficient to discharge the flood-waters of the Cap Rouge river, would also be essential. With a tide-gate at the entrance, the excavation within the Dock could be taken out from year to year, as the increasing number of ships resorting hither would demand ample space,—by which process, the outlay at the commencement might be considerably restricted.

Many other suggestions and improvements would naturally develop themselves on a more deliberate investigation of the projected work. At the present time, it is conceived, sufficient has been advanced for your consideration, and to meet the wishes and intentions of the gentleman whose application has given rise to this preliminary report.

(Signed)

F. P. RUBIDGE,

Engr. Pub. Works.

There was a subsequent report made, but of which I have not got a copy; but the substance of it is, that docks might be constructed with 17 feet water and containing 27 acres of surface,—also a graving dock, stores, &c., at the cost of £130,000.

I have a copy of the plan of the proposed works in my possession, and will be happy to show it to any person who may wish to see it.

Nothing farther, so far as I know, has been done in the matter.

The reason that prevented me from pressing the subject farther on the notice of the Government and the public, at that time, was, that the estimated cost came much higher than I expected, and the

pressure on the money market at that time, rendered the raising of funds very doubtful; and, although money matters are not much better now than they were then, and although I have every reason to think that the estimate is correct, yet I still think something of the kind might be done to good advantage.

Estimate, so far as I know, has been made of Mr. Rubidge's smaller plan, so that this, or something of a similar kind, might be adopted.

The great objection that is made to this project, is its distance from Quebec, which is about nine miles. It is therefore supposed that it would injure Quebec and would be inconvenient for individuals already established there.

But, in answer to this objection, it may be said that in all cases, where the general good of the whole province is at stake, sectional and individual interests ought to be laid aside, and the general good consulted.

But even let us suppose that the interest of Quebec is alone to be consulted; and let us also suppose, which I really believe to be true, that no place nigher Quebec can be found adapted for that purpose; and, also, let us suppose, which I also think very probable, that unless something of the kind is done, the produce trade will leave the St. Lawrence altogether; the question will then be, whether is it better for the people of Quebec to have their transshipping done at Cap Rouge, or to have no business of the kind at all?

The Americans are now taking away a great part of our grain trade. The question is, what is the cause of this?

There are a great many causes. I shall not, at present, enter into a full discussion of the subject, but will only mention one thing which, there is no doubt, contributes much to bring about this state of things, and that is, the very great facilities which they have by means of modern inventions for transshipping, where that operation has to be performed.

At Oswego, Buffalo and other ports on the lake shores, where property is transhipped, they will take wheat into store at the rate of 1000 bushels an hour, and again re-ship it with equal rapidity, and all for the small charge of one cent per bushel. Whereas, with us it takes about treble the time and treble the cost to do the same thing.

Thus they do business with so much rapidity, and at so low charges, that they can afford to give more for our produce in our markets than we can give. So that, unless we meet them with similar improvements, our trade will be gone, perhaps never to return.

I am, &c., &c.,

MICHAEL SCOTT.

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